

REMARKS

This is responsive to the Written Restriction Requirement mailed June 28, 2005.

Applicants elect Group I (apparatus claims 1-12, 25, and 26) with traverse.

Applicants elect species A with traverse.

The Restriction Requirement

The Written Restriction Requirement requires election of one of the following groups of claims for further prosecution:

Group I: Claims 1-12, 25, and 26 drawn to an electro-optic device; and

Group II: Claims 13-24 drawn to a method of forming a liquid crystal cell.

Additionally, the Written Restriction Requirement requires election of one of three species for further prosecution:

Species A: First embodiment drawn to an electro-optic device employing a stabilizing single-surface polymer network;

Species B: Second embodiment drawn to an electro-optic device employing a stabilizing double-surface polymer network;

Species C: Third embodiment drawn to an electro-optic device employing a stabilizing volume polymer network.

Still further, upon election of either Species B or Species C, the Written Restriction Requirement requires election of one of the following sub-species for further prosecution:

Sub-species drawn to an electro-optic device employing a switching behavior of a volume-stabilized electro-optic device responsive to a square-wave voltage; and

Sub-species drawn to an electro-optic device employing a switching behavior of a volume-stabilized electro-optic device responsive to a triangle-wave voltage.

The claim amendments

Claim 1 is amended herein to call for an inhomogeneous polymeric network disposed in the gap and having a higher density near one or both of the first and second spaced-apart surfaces compared with a density in a middle of the gap.

Claim 19 is amended herein to call for optically polymerizing the photoreactive monomer to form a non-uniform stabilizing polymer network having a higher density near one or both principal surfaces of the liquid crystal cell compared with a density in a middle of the cell.

Claim 13 as originally filed calls for polymerizing at least a portion of the photoreactive monomer near the principal surface to generate a polymer network having a density corresponding to the non-uniform a ultraviolet light intensity profile.

Claim 25 as originally filed calls for a polymeric network extending partway into the liquid crystal cell leaving at least a portion of the liquid crystal cell substantially free of the polymeric network.

Accordingly, it is respectfully submitted that all independent claims are now generic to Species A and B, but not to Species C which includes a substantially uniform volume network.

Applicants Elect Apparatus Group I with Traverse

Applicants elect apparatus group I (claims 1-12, 25, and 26) with traverse.

The Written Restriction Requirement states that the electro-optic device (Group I) can be made by a different process in which the polymer network is generated by ultraviolet light or IR light (heat) or electron beam energy.

Method claim 13 calls for illuminating by ultraviolet light, while claim 19 calls for optically polymerizing, which includes polymerizing by ultraviolet light (for example, see narrowing dependent claim 20).

All apparatus claims as set forth herein now call for some type of spatial inhomogeneity in the polymer network. It is not clear that heating can produce such inhomogeneity, unless a substantial and persistent thermal gradient is somehow imposed across the cell. To produce such inhomogeneity using an electron beam, the electrons should pass through the substrate but be quickly stopped by the liquid crystal material disposed in the cell gap. This would seem to require a very large, and

perhaps unattainable, difference in electron absorption for the substrate and liquid crystal materials.

Accordingly, the Written Restriction Requirement has not shown that the product as claimed can be made by another and materially different process. Applicants urge that the Restriction between Groups I and II be withdrawn.

Applicants elect Species A with Traverse

Applicants elect Species A with traverse. As amended herein, all independent claims are generic to Species A and B, and no independent claim reads upon Species C. Dependent claims 2, 4, and 5 read only upon species B. Dependent claims 3, 6-12, 14-18, 20-24, and 26 are generic to Species A and B.

Because enforcing the restriction between Species A and Species B would avoid initial examination of only three claims, Applicants urge that the species restriction be withdrawn, and urge that claims 2, 4, and 5 should be examined together with the remaining claims which read upon both Species A and Species B.

In the alternative, as noted in the Written Restriction Requirement at page 4, upon allowance of a generic claim, Applicants would be entitled to consideration of claims to additional species which depend from the allowed generic claim. Accordingly, if generic claim 1 is allowed upon examination, Applicants respectfully request that dependent claims 2, 4, and 5 be considered and allowed as well. Similarly, if generic claim 3 is allowed, Applicants respectfully request that dependent claim 4 be considered and allowed as well.

CONCLUSION

Applicants elect Group I and Species A, both with traverse. Applicants urge that claims 1-26 as set forth herein are in condition for examination together. Applicants look forward to a first Office Action on the merits examining these claims.

Respectfully submitted,

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